

SNF-29

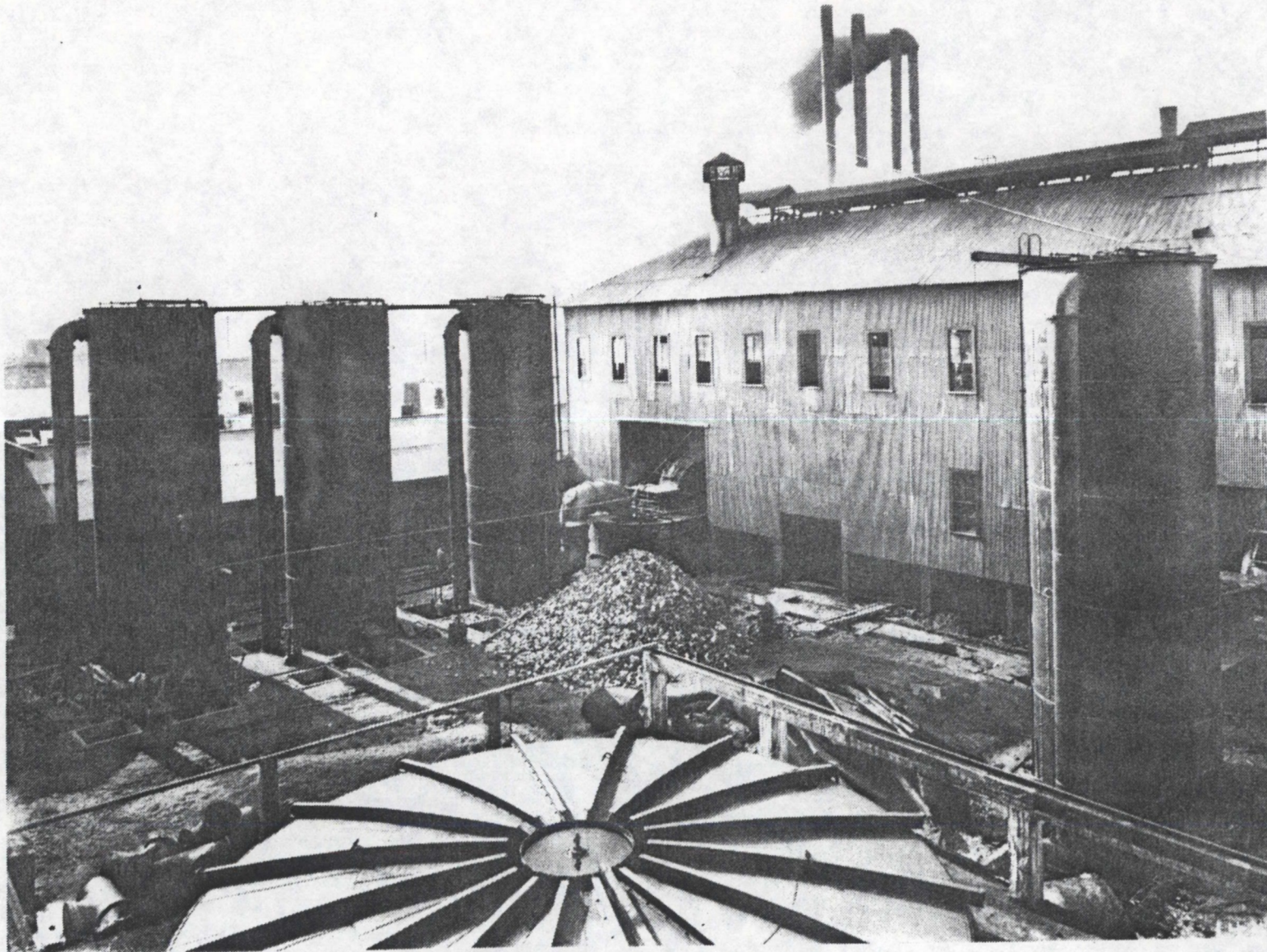


Figure 13

San Francisco Gas Plant (GG-SF-BCH) - Photograph

"Metropolitan Gas Works." Date and direction of view are unknown. From the appearance of the equipment the photo was probably taken in the 1920s or 1930s.

SNF-30

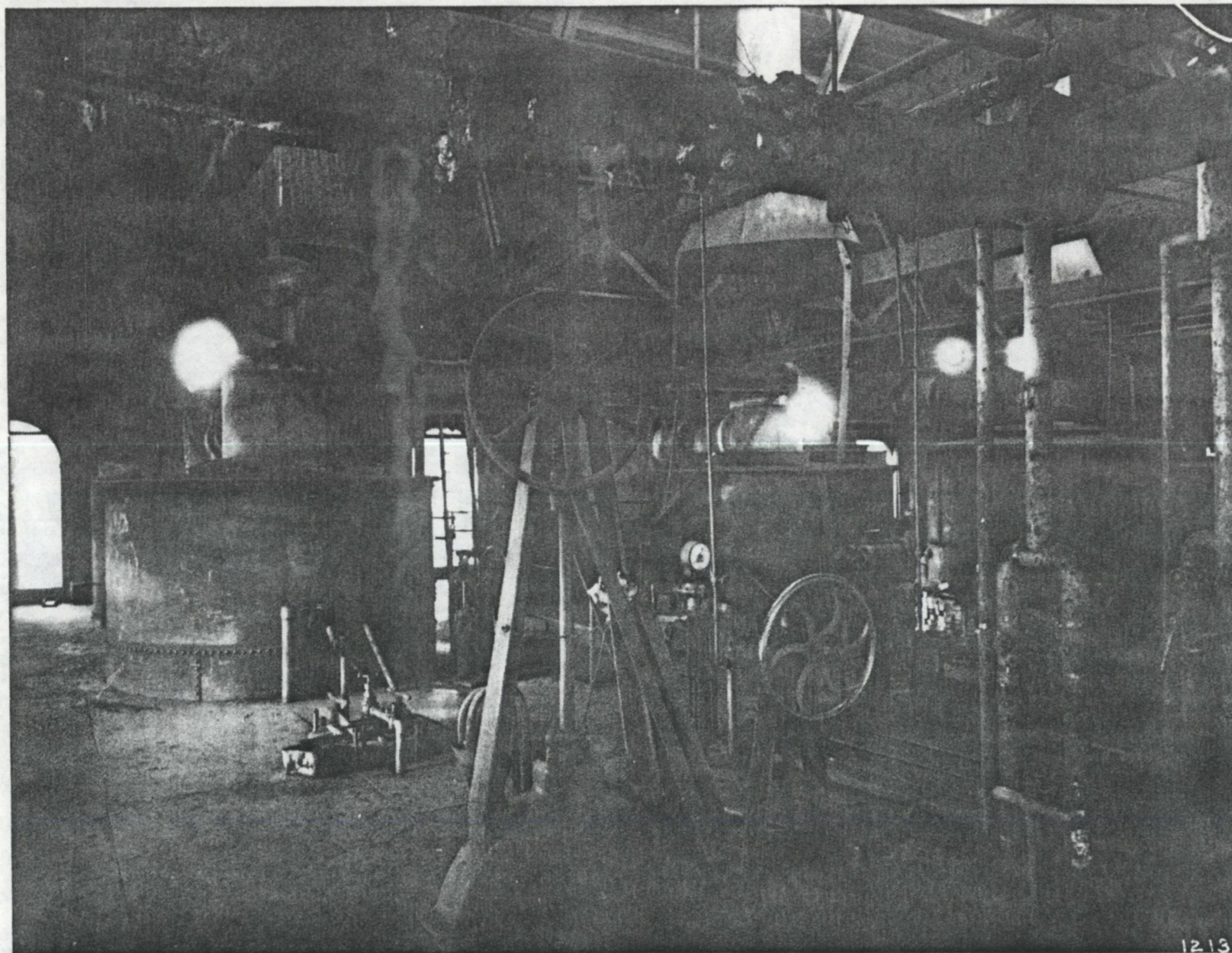
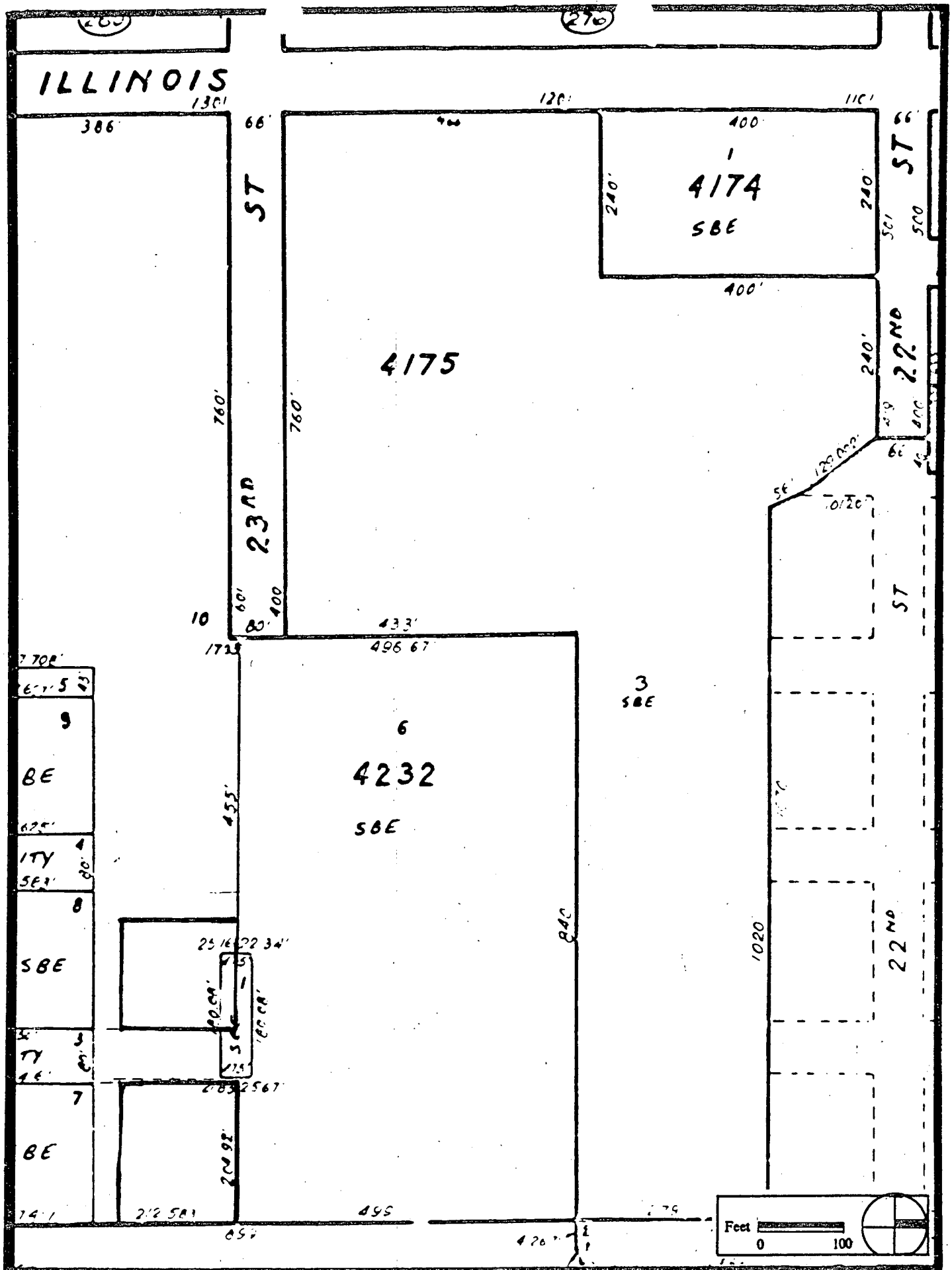


Figure 14

San Francisco Gas Plant (GG-SF-APT) - Photograph (#1213)

View of second floor generator room. Date and direction of view are unknown.

Figure 15



SAN FRANCISCO

DEPARTMENT OF PUBLIC WORKS

BUREAU OF ENGINEERING

FRANK H. MOSS JR.
CITY ENGINEER

1982



San Francisco Gas Plants - Location Map

PACIFIC GAS AND ELECTRIC COMPANY

PG&E



77 BEALE STREET • SAN FRANCISCO, CALIFORNIA 94106 • (415) 781-4211 • TWX 910-372-6587

November 5, 1986

United States Department of Interior
Bureau of Land Management
National Park Service
Building 201, Fort Mason
San Francisco, CA 94123

Attention: Mr. Ray McElroy
Safety Manager

Gentlemen:

With your permission, Pacific Gas and Electric Company's Department of Engineering Research recently sampled exposed surface soil at 680 Beach Street for the presence of residues commonly associated with manufactured gas plant operations. The results of an analysis of these samples by an independent laboratory certified by the State of California are attached for your information (Table 1). As previously indicated, we are also providing these results to appropriate government officials.

Attached also is information which is furnished as general background. While this information is believed to be reliable, PGandE assumes no responsibility for its use or accuracy.

For specific questions or interpretations of the test results, we recommend that you contact the California Department of Health Services, Ms. Susan Solarz, (415) 540-3401, and/or the Regional Water Quality Control Board, Mr. Don Dalke, (415) 464-1255.

Please feel free to return the enclosed postage-paid card if you have any other questions concerning PGandE's Manufactured Gas Plant Program.

Sincerely,

James M. Eaneman
San Francisco Division Manager

JME:11

Attachments

cc: United States Environmental
Protection Agency, Region IX
California Department of Health Services
California Regional Water
Quality Control Board

TABLE 1

RESULTS OF SURFACE SOIL TESTING

Total <u>PNAs</u>	Concentration in Parts Per Million			
	<u>Lead</u>	<u>Arsenic</u>	<u>Mercury</u>	<u>Cyanide</u>
160	1000	14	1.6	<1.0

Key: < : "Less than"; indicates that constituent
was not detected at the detection limit given

OWNER: U.S. Department of Interior

GENERAL BACKGROUND

The test results set forth in Table 1 include the following categories of chemical compounds: polynuclear aromatic hydrocarbons (PNAs), certain metals, and cyanide.

The PNAs are a class of organic compounds that are found throughout the environment, primarily as a result of natural and man-made combustion processes. Specifically, they are often found in asphalt roofing materials and pavement, fireplaces, home barbecues, charbroiled foods, certain medications (including medicated soaps and shampoos) and many other common items.

Although we are not in a position to assess the health risk of particular exposures to PNAs, the attached chart provides a range of concentrations at which PNAs may be found in public areas and in common items. While PNAs are prevalent in the environment, they may pose a potential health risk in certain cases of excessive exposure. There are no national standards set by the Environmental Protection Agency (EPA) for PNAs in soils.

With respect to the metals (arsenic, lead, and mercury) the State of California has established certain levels at or above which waste materials are classified as hazardous. The concentrations set forth in Title 22, Chapter 30, Article 11, of the California Administrative Code for arsenic, lead, and mercury are 500 milligrams per kilogram (parts per million), 1,000 parts per million, and 20 parts per million, respectively. While these levels are used to legally classify a waste material as hazardous, they do not define whether a health risk exists without additional information about personal exposure.

Note that the test results do not distinguish between residues from gas manufacturing and other sources. For example, lead is commonly found in the environment, particularly in high-traffic urban areas, as a result of automobile emissions. Cyanide is a common ingredient in certain pesticides, rat poisons, silver and metal polishes, photographic solutions, and fumigating products. Arsenic is widely used in insecticides and other pesticides, paint pigments, and as a hardening agent in metals.

Concentrations of Polynuclear Aromatic Hydrocarbons (PNA) in Surface Soils,
Commercial Products, and Foods

Material	Measured PNA Concentration, in Parts per Million by Weight	Reference (See Listing)
Soil (open country, near town)	5 - 120	1
Soil (town near highway)	21 - 300	1
Soil (alpine)	4 - 8	1
Soil (oak forest)	13	2
Soil (conif. forest)	7	2
Used motor oil	85	3
Creosote (wood preservative)	80,000 - 93,000	4
Creosote from treated wood	200,000	5
Coal tar (roofing tar)	61,000 - 70,000	4
Petroleum jelly	13	4
Over-the-counter dandruff shampoos		
Brand A	2,060	5
Brand B	2,320	
Brand C	2,700	
Medicated soap (coal tar-based)		5
Brand A	2	
Asphalt	0.1 - 27 ^{1/}	6
Spinach	0.028 ^{2/}	7, 8
Charcoaled meat	0.0026 - 0.0112 ^{1/}	7, 8, 9
Margarine	0.0026 - 0.0145 ^{3/}	7, 8
Orange rind		
Near highway	25 ^{4/}	10
Desert area	0 ^{4/}	10
Steak (broiled)	0.020 ^{5/}	7

1/ As Benzo(a) pyrene

2/ As Chrysene

3/ As Benzo(b) fluoranthene

4/ As Anthracene

5/ As Pyrene

REFERENCES

1. Blumer, M., W. Blumer, and T. Reich. 1977. Polycyclic aromatic hydrocarbons in soils of a mountain valley. *Environ. Sci. Technol.* 11(12):1082-1084.
2. Youngblood, W. W., and M. Blumer. 1975. Polycyclic aromatic hydrocarbons in the environment: homologous series in soils and recent marine sediments. *Geochim. Cosmochim. Acta* 39:1303-1315.
3. Peake, E. and K. Parker. 1979. Polynuclear aromatic hydrocarbons and the mutagenicity of used crankcase oils. pp. 1025-1039. In. A. Bjorseth and A. J. Dennis (eds.) *Polynuclear aromatic hydrocarbons: Chemistry and biological effects*. Battelle Press, Columbus, Ohio.
4. Linjinski, W., I. Domskey, G. Mason, H. Y. Ramahi, and T. Safavi. 1963. The chromatographic determination of trace amounts of polynuclear hydrocarbons in petrolatum, mineral oil, and coal-tar. *Analytical Chemistry*. 35:952-956.
5. Pacific Gas and electric Company. 1986. Total PNA Analysis of Over-The-Counter Dandruff Shampoos, Creosote, and Medicated Soap. Unpublished.
6. Wallcave, L., H. Garcia, R. Feldman, W. Lijinski, and P. Shubik. 1971. Skin tumorigenesis in mice by petroleum asphalts and coal-tar pitches of known polynuclear aromatic hydrocarbon content. *Toxicology and Applied Pharmacology* 18:41-52.
7. IARC. 1973. Monographs: Certain polycyclic aromatic hydrocarbons and heterocyclic compounds. Vol. III. IARC, Lyon.
8. White, J. B. and R. R. Vanderslice. 1980. ROM source and ambient concentration data: Review and analysis. U.S. EPA, Research triangle Park, North Carolina.
9. Blumer, M. 1961. Benzpyrenes in soil. *Science* 134(3477):474-475.
10. Gunther, F. A., F. Buzzetti, and W. E. Westlake. 1967. Residue behavior of polynuclear hydrocarbons on and in oranges. *Residue Rev.* 17:81-104.

BEACH ST

PACIFIC GAS AND ELECTRIC COMPANY

PG&E



77 BEALE STREET • SAN FRANCISCO, CALIFORNIA 94106 • (415) 781-4211 • TWX 910-372-6587

November 5, 1986

Wharfside One
c/o Wharf Inn
2601 Mason Street
San Francisco, CA 94133

Attention: Mr. Mark Schwass
General Manager

Gentlemen:

With your permission, Pacific Gas and Electric Company's Department of Engineering Research recently sampled exposed surface soil at 2500 Mason Street for the presence of residues commonly associated with manufactured gas plant operations. The results of an analysis of these samples by an independent laboratory certified by the State of California are attached for your information (Table 1). As previously indicated, we are also providing these results to appropriate government officials.

Attached also is information which is furnished as general background. While this information is believed to be reliable, PGandE assumes no responsibility for its use or accuracy.

For specific questions or interpretations of the test results, we recommend that you contact the California Department of Health Services, Ms. Susan Solarz, (415) 540-3401, and/or the Regional Water Quality Control Board, Mr. Don Dalke, (415) 464-1255.

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James M. Eaneman
San Francisco Division Manager

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5.5	610	8.4	.75	< 1.0

Key: < : "Less than"; indicates that constituent
was not detected at the detection limit given

OWNER: Wharfside One

GENERAL BACKGROUND

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